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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,795	10/19/2001	Markus Schetelig	1117.40738X00	6987
22907	7590	11/02/2006	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			ZHENG, EVA Y	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/981,795

Applicant(s)

SCHETELIG ET AL.

Examiner

Eva Yi Zheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-19 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 20, 21, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 12-28 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12-15, 18 and 22-25 are rejected under 35 U.S.C. 102(e) as being unpatentable by Ohsuge (US 6,768,729).
  - a) Regarding to claim 12, Ohsuge et al. disclose a method for data extraction from a data stream containing at least one data packet, comprising the steps of:
    - comparing a bit stream derived from a received digital data stream with an expected bit sequence to determine a correlation value for detecting a data packet (inherent as 2, 3, 12 and 13 in Fig. 1; Col 3, L59- Col 4, L28);
    - starting data extraction from the bit stream when the correlation value exceeds a threshold value indicating that a data packet has been detected (rake receiver block 7 in

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Fig. 1 constitute as data extraction; a conventional CDMA receiver as shown in Fig. 22, wherein rake synthesis section perform multipath extraction; Col 1, L56- Col 2, L24);

storing the correlation value that exceeds a threshold value as a maximum correlation value for use as a new threshold value (16 in Fig. 1; S35 in Fig.5);

continuing comparing the received bit stream with the expected bit sequence to determine a new correlation value (as shown in Fig.5); and

restarting data extraction from the bit stream when the new correlation value exceeds the stored maximum correlation value (rake receiver block 7 in Fig. 1 constitute as restarting data extraction; output of block 18 in Fig. 1).

b) Regarding to claim 13, Ohsuge et al. disclose wherein the threshold value is a programmable value (DSP; as shown in Fig.1).

c) Regarding to claim 14, Ohsuge et al. disclose wherein the correlation value is stored as the maximum correlation value each time data extraction is started or restarted and the new correlation value continuously determined after starting or restarting data extraction is compared with the stored maximum correlation value (as shown in Fig.5).

d) Regarding to claim 15, Ohsuge et al. disclose wherein data extracted prior to restarting data extraction is rejected (as shown in Fig.5).

e) Regarding to claims 18 and 24, Ohsuge et al. disclose a device for data extraction from a data stream containing at least one data packet, comprising:

a data extraction unit for extracting data from a received data stream (rake receiver block 7 in Fig. 1 constitute as data extraction; a conventional CDMA receiver as

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shown in Fig. 22, wherein rake synthesis section perform multipath extraction; Col 1, L56- Col 2, L24);

a packet detector for comparing a bit stream from a received digital data stream with an expected bit sequence to determine a correlation value for detecting a data packet, the packet detector further configured to compare the received bit stream with the expected bit sequence after starting data extraction to determine a new correlation value (inherent as 2, 3, 12 and 13 in Fig. 1; Col 3, L59- Col 4, L28; Fig. 1 and Fig. 5); and

a sync-control module for receiving the correlation value from the packet detector, the sync-control module controlling the data extraction unit for starting or restarting data extraction (rake receiver block 7 in Fig. 1) from the bit stream when the correlation value exceeds a threshold value or a stored maximum correlation value indicating that a data packet has been detected, and for storing the correlation value that exceeds a threshold value as maximum correlation value for use as a new threshold value (17 in Fig.1; and as shown in Fig.5).

f) Regarding to claims 22, 23 and 25, Ohsuge et al. disclose synchronizes the received data stream based on the stored maximum correlation value (as shown in Fig. 5).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16, 17, 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsuge et al. (US 6,768,729) in view of Gurney et al. (US 5,619,542).

a) Regarding to claims 16, 19 and 26, Ohsuge et al. disclose all the subject matters above except for the specific teaching of an initial timing estimator which received the digital data stream for determining an initial estimate prior to starting data extraction for synchronizing data extraction with data stream symbols.

Gurney et al, in the same field of endeavor, disclose an optimal sampling and timing estimation system, comprising symbol timing estimator (204 in Fig.2); symbol timing decimator (202); and a selector (206). The symbol timing decimator minimize receiver signal's measured or estimated distortion. It also provides highest possible signal to noise ratio in a digital receiver. Therefore, it is obvious to one of ordinary skill in art to combine the efficient timing estimation system by Gurney et al with the CDMA receiver by Ohsuge et al. By doing so, provide optimal receiver, better reception signal quality, consume less power, and reduce production cost.

b) Regarding to claim 17, Gurney et al disclose timing of the sampling of bits is continuously tracked by comparing timing of symbols within an oversampled bit stream with actual timing of the sampling of bits and correcting the timing of the sampling of bits if a deviation between the timing of the sampling of bits and the timing of the symbols exceeds a value (as shown in Fig. 2).

***Allowable Subject Matter***

6. Claims 20, 21, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571-272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng  
Examiner  
Art Unit 2611

October 25, 2006

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER